

Claims

- [c1] In a meter that measures the usage of a utility commodity and has a base and a removable cover, a system that replaces said removable cover comprising
- (A) a replacement cover that fits onto said base in the same manner as said removable cover;
 - (B) a usage reader inside said replacement cover that obtains information on the amount of said utility that is used without making an electrical or mechanical connection to said meter;
 - (C) an automatic meter reader, which comprises a microprocessor for storing information and calculating charges and a transmitter for transmitting information to a remote receiver; and
 - (D) means for transferring information from said usage reader to said automatic meter reader.
- [c2] A system according to Claim 1 wherein said automatic meter reader is outside of said replacement cover.
- [c3] A system according to Claim 2 wherein said means is wires that pass through an aperture in said replacement cover.

- [c4] A system according to Claim 2 wherein said means is a wireless connection between said usage reader and said automatic meter reader.
- [c5] A system according to Claim 1 wherein said automatic meter reader is inside said replacement cover.
- [c6] A system according to Claim 5 wherein said replacement cover is laterally extended to house said automatic meter reader.
- [c7] A system according to Claim 1 wherein said transmitter transmits information through a telephone line.
- [c8] A system according to Claim 1 wherein said utility is electric power.
- [c9] A system according to Claim 1 wherein said removable cover is removed by turning it.
- [c10] A system according to Claim 1 wherein said cover is integrally molded from clear plastic or glass.
- [c11] A system according to Claim 1 wherein said meter has a meter wheel, the angular velocity of which is proportional to the usage of said utility commodity.
- [c12] A system according to Claim 11 wherein said usage reader is an optical pulse reader.

- [c13] A system according to Claim 12 wherein the position of said optical pulse reader relative to said meter wheel is adjustable.
- [c14] A system according to Claim 1 wherein said usage reader has beveled sides.
- [c15] A system according to Claim 1 wherein said transmitter transmits information to the internet.
- [c16] A method of obtaining information from a meter that measures usage of a commodity utility use comprising installing a system according to Claim 1 on said meter.
- [c17] In an electric power meter that measures the use of electric power and has a base and a removable cover, a system that replaces said removable cover comprising
 - (A) a transparent replacement cover that fits onto said base in the same manner as said removable cover;
 - (B) an optical pulse reader inside said replacement cover that obtains information on the amount of said electric power that is used without an electrical or mechanical connection to said meter;
 - (C) an automatic meter reader, which comprises a microprocessor for storing information and calculating charges and a transmitter for transmitting infor-

mation to a remote receiver; and

(D) means for transferring information from said optical pulse reader to said automatic meter reader.

[c18] A method of obtaining information from a meter that measures electrical power usage comprising installing a system according to Claim 17 on said meter.

[c19] In an electric power meter that measures the use of electric power and has a base and a removable cover, a system that replaces said removable cover comprising

- (A) a transparent replacement cover that fits onto said base in the same manner as said removable cover;
- (B) an optical pulse reader inside said replacement cover that obtains information on the amount of said electric power that is used without an electrical or mechanical connection to said meter;
- (C) an automatic meter reader, which comprises a microprocessor for storing information and calculating charges and a transmitter for transmitting information to a remote receiver; and
- (D) a wireless connection for transferring information from said optical pulse reader to said automatic meter reader.

[c20] A method of obtaining information from a meter that

measures electrical power usage comprising installing a system according to Claim 19 on said meter.